# Class Title: Traffic Signal Technician IV

### **BRIEF DESCRIPTION OF THE CLASSIFICATION:**

Installs, maintains and repairs fiber optic traffic signal communication, solid state, electromechanical and microprocessor based traffic signal control equipment. Maintains the computerized traffic signal systems. Makes emergency calls and supervises employees. Works with emergency storm response teams.

#### **ESSENTIAL FUNCTIONS:**

This information is intended to be descriptive of the key responsibilities of the classification. The following examples do not identify all duties performed by any single incumbent. Specific requirements of individual positions are described in the Job Description.

	Physical Strength Code	ESSENTIAL FUNCTIONS
1	Н	Administers traffic signal systems by installing, relocating and maintaining traffic devices including control boxes, conduits, cable ducts and signal heads, installing traffic lights, repairing control equipment, maintaining all electromechanical, solid state and microprocessor based traffic signal control equipment, troubleshooting equipment, performing preventative and corrective maintenance, replacing bad components, constructing, repairing and maintaining signal hardware, and performing emergency service calls.
2	Н	Manages communication systems by developing repair techniques and methods, providing technical information and advice, reviewing plans and specifications, inspecting completed work of employees and contractors, assisting engineering personnel in planning, designing and developing electrical, electronic and communication systems, maintaining fiber optic cables, connectors, splice boxes, fiber optic modems and interconnects, troubleshooting, removing and replacing integrated circuit chips, transistors, resistors, capacitors, inductors and diodes, reading blueprints and schematics, and performing emergency service calls.
3	L	Performs supervisory duties by developing and administering budgets, generating reports and performance indicators, scheduling, hiring, developing, evaluating and disciplining personnel, reviewing accidents, performing inspections of facility practices and procedures to ensure conformance with OSHA regulations, providing employee training, overseeing performance, and allocating resources.
4	L	Responds to service calls by diagnosing the problem and replacing components damaged by vehicles or storms.

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## **CLASS REQUIREMENTS:**

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Formal Education / Knowledge	Work requires knowledge of a specific vocational, administrative, or technical nature which may be obtained with six months/one year of advanced study or training past the high school equivalency. Junior college, vocational, business, technical or correspondence schools are likely sources. Appropriate certification may be awarded upon satisfactory completion of advanced study or training.			
Experience	Two years experience in electronics repair.			
Certifications and Other Requirements	Valid Class B CDL Driver's License, IMSA Levels I & II, , Fiber Optics Certification, and may require State Journeyman Electrician's License			
Reading	Work requires the ability to read technical manuals, schematics, diagrams, blueprints, and work orders.			
Math	Work requires the ability to perform general math calculations such as addition, subtraction, multiplication and division.			
Writing	Work requires the ability to write work plans, make changes on blueprints and schematics, and work orders.			
Managerial	Managerial responsibilities include planning and scheduling preventative maintenance.			
Budget Responsibility	N/A			
Supervisory / Organizational Control	Work requires functioning as a lead worker performing essentially the same work as those directed, and includes overseeing work quality, training, instructing, and scheduling work.			
Complexity	Work requires analysis and judgment in accomplishing diversified duties. Work requires the exercise of independent thinking within the limits of policies, standards, and precedents.			
Interpersonal / Human Relations Skills	Contacts others within the organization. These contacts may involve similar work units or departments within the City which may be involved in decision making or providing approval or decision making authority for purchases or projects. Vendors and suppliers may also be called upon for information on purchases, supplies or products. Meetings and discussions may be conducted with customers, motorists and sales representatives.			

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## **OVERALL PHYSICAL STRENGTH DEMANDS:**

Sedentary	Light	Medium	Heavy X	Very Heavy
S = Sedentary Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time	L = Light Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree.	M = Medium Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly.	H = Heavy Exerting 50-100 lbs. occasionally, 25-50 lbs. frequently, or up to 10-20 lbs. constantly.	VH = Very Heavy Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

## **PHYSICAL DEMANDS:**

C = Continuously	F = Frequently	O = Occasionally	R = Rarely	N = Never
2/3 or more of the time.	From 1/3 to 2/3 of the time.	Up to 1/3 of the time.	Less than 1 hour per week.	Never occurs.

This is a description of the way the job is currently performed; it does not address the potential for accommodation.

PHYSICAL DEMANDS	FREQUENCY CODE	DESCRIPTION
Standing	С	Intersections, bucket trucks, lift bucket, ladders, maintenance or repair of signal cabinets, setting up work zone
Sitting	F	Bench repair work, computer, desk work, driving
Walking	С	Setting up work zone, to/from truck for equipment or tools
Lifting	F	Tools, equipment, controller, traffic signals, wiring, parts and components, man hole covers, signal cabinets
Carrying	F	Tools, equipment, traffic signals, wiring, parts and components
Pushing/Pulling	F	Cable, poles, signals
Reaching	F	Systems and subsystems into traffic signal, tools, equipment
Handling	С	Tools, equipment, controller, traffic signals, wiring, parts and components, man hole covers, signal cabinets
Fine Dexterity	С	Computer keyboard, writing, micro-miniature components
Kneeling	F	Working in control cabinet, to reach poles or hand holes
Crouching	F	Working in control cabinet, to reach poles or hand holes
Crawling	О	Working in control cabinet, to reach poles or hand holes
Bending	С	Inspect man holes, repair-maintenance work, climbing ladder
Twisting	С	Working in bucket trucks, in/out of trucks
Climbing	С	Ladder, in/out of trucks
Balancing	С	Ladder, when carrying equipment
Vision	С	Computer, desk work, repair-maintenance of signal cabinets, wiring, operation of equipment and devices, setting up work zone, driving
Hearing	С	Co-workers, staff, supervisor, traffic
Talking	F	Co-workers, staff, supervisor
Foot Controls	С	Driving, operation of equipment
Other (specify)	N	

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## MACHINES, TOOLS, EQUIPMENT, AND WORK AIDS:

Drills, digital meters, oscilloscopes, ladders, electric saws, hand saws, aerial lifts, forklifts, motor vehicle, pneumatic tools (air driver), various hand tools: hammer, screwdrivers, wrenches, pliers, laptop computer, testing equipment, control units, microprocessor, Standard Windows and Office software, BiTrans, Sonet, OTDR, Fusion splice equipment, BERTS, Data analysis tools.

#### **ENVIRONMENTAL FACTORS:**

D = Daily	W = Several	M = Several	S = Seasonally	N = Never
	Times Per Week	Times Per Month		

HEALTH AND SAFETY		ENVIRONMENTAL FACTO	RS
Mechanical Hazards	D	Dirt and Dust	D
Chemical Hazards	W	Extreme Temperatures	D
Electrical Hazards	D	Noise and Vibration	D
Fire Hazards	N	Fumes and Odors	D
Explosives	N	Wetness/Humidity	D
Communicable Diseases	N	Darkness or Poor Lighting	D
Physical Danger or Abuse	D		
Other (see 1 below)	N		

PRIMARY WORK LOCA	ΓΙΟΝ
Office Environment	
Warehouse	
Shop	X
Vehicle	
Outdoors	
Other (see 2 below)	X

### PROTECTIVE EQUIPMENT REQUIRED:

Hard hat, steel toed shoes, safety harness, gloves, eye protection

#### **NON-PHYSICAL DEMANDS:**

C = Continuously	F = Frequently	O = Occasionally	R = Rarely	N = Never
2/3 or more of the time.	From $1/3$ to $2/3$ of the time.	Up to $1/3$ of the time.	Less than 1 hour per week.	Never occurs.

NON-PHYSICAL DEMANDS	
Time Pressures	О
Emergency Situations	O
Frequent Change of Tasks	O
Irregular Work Schedule/Overtime	F
Performing Multiple Tasks Simultaneously	О
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	F
Noisy/Distracting Environment	F
Other (see 3 below)	N

(3)

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 $<sup>\</sup>overline{(1)}$ 

<sup>(2)</sup> Traffic intersections/Field work